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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/553,941	04/21/2000	Richard A. Baker, Jr.	SAA-36	6728

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EXAMINER

NGUYEN, CHAU T

ART UNIT	PAPER NUMBER
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2176

DATE MAILED: 08/29/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/553,941

Applicant(s)

BAKER, JR., RICHARD A.

Examiner

Chau Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 June 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 31-55 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 31-55 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 06/14/2004.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. Amendment, received on 06/17/2005, has been entered. Claims 31-55 are presented for examination.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 31-34, 36-37, 39-50, 52 and 54-55 are rejected under 35 U.S.C. 103(a) as being unpatentable over Beck et al. (Beck), US Patent No. 5,809,440, and further in view of Bischoff, US Patent No. 6,255,988.

4. As to independent claims 31 and 41, Beck discloses an industrial automation system comprising:

a first industrial automation network device for performing a first industrial automation function and located at a first physical location within the industrial automation system, the first industrial automation network device comprising a first industrial automation software program configured to perform the first industrial

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automation function which is directly associated with and necessitated by the first physical location of the industrial automation system, and comprising a first device address, the first industrial automation network device being associated with GPS physical site locator for identifying the first physical location and for generating a first location data representative of the first physical location (Abstract, and col. 2, line 52 – col. 3, line 6, and col. 3, lines 20–29: the group master controller 150A (first industrial automation network device) is connected to sensor unit 160 which has a unique physical location, a control unit configured to automatically assign sensor unit a unique address based upon the physical location of that sensor relative to the reference position indicated by the GPS);

a second industrial automation network device for performing a second industrial automation function and located at a second physical location within the industrial automation system, the second industrial automation network device comprising a second industrial automation software program configured to perform the second industrial automation function which is directly associated with and necessitated by the second physical location of the industrial automation system, and comprising a second device address, the second industrial automation network device being associated with GPS physical site locator for identifying the second physical location and for generating a second location data representative of the second physical location (Abstract, and col. 2, line 52 – col. 3, line 6, and col. 3, lines 20–29: the group master controller 150B (second industrial automation network device) is connected to sensor unit 160 which has a unique physical location, a control unit configured to automatically assign sensor

unit a unique address based upon the physical location of that sensor relative to the reference position indicated by the GPS);

a third industrial automation network device for performing a third industrial automation function and located at a third physical location within the industrial automation system, the third industrial automation network device comprising a third industrial automation software program configured to perform the third industrial automation function which is directly associated with and necessitated by the third physical location of the industrial automation system, and comprising a third device address, the third industrial automation network device being associated with GPS physical site locator for identifying the third physical location and for generating a second location data representative of the third physical location (Abstract, and col. 2, line 52 – col. 3, line 6, and col. 3, lines 20–29: the group master controller 150C (second industrial automation network device) is connected to sensor unit 160 which has a unique physical location, a control unit configured to automatically assign sensor unit a unique address based upon the physical location of that sensor relative to the reference position indicated by the GPS);

a fourth industrial automation network device for performing a fourth industrial automation function and located at a fourth physical location within the industrial automation system, the fourth industrial automation network device comprising a fourth industrial automation software program configured to perform the fourth industrial automation function which is directly associated with and necessitated by the fourth physical location of the industrial automation system, and comprising a fourth device

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address, the fourth industrial automation network device being associated with GPS physical site locator for identifying the fourth physical location and for generating a second location data representative of the fourth physical location (Abstract, and col. 2, line 52 – col. 3, line 6, and col. 3, lines 20–29: the group master controller 150D (second industrial automation network device) is connected to sensor unit 160 which has a unique physical location, a control unit configured to automatically assign sensor unit a unique address based upon the physical location of that sensor relative to the reference position indicated by the GPS);

a controlling workstation comprising mapping software for receiving, mapping, and storing the first device address and the first physical location data, and the second device address and the second physical location data, respectively, the controlling workstation further storing the first industrial automation software program for backup purposes (Abstract, col. 2, line 46 – col. 3, line 63: mapping unit 140 (a controlling workstation includes a mapping-unit interface and a mapping computer and receiver unit 144, the mapping unit 140 uses data obtained from sensor units and positional information received via a GPS antenna to create a map of a given field).

a master controller comprising software for storing mapping data comprising the first device address and the second device address both mapped to the first area, and the third device address and the fourth device address both mapped to the second area (Abstract, col. 2, line 46 – col. 3, line 63: mapping unit 140 (a controlling workstation includes a mapping-unit interface and a mapping computer and receiver unit 144, the

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mapping unit 140 uses data obtained from sensor units and positional information received via a GPS antenna to create a map of a given field).

However, Beck does not explicitly disclose each automation network device includes a GPS physical site locator. Bischoff discloses an industrial process field instrument includes field instruments 201 and 202 (first and second automation network device, respectively), and each field instrument includes a GPS receiver (Abstract, col. 2, line 40 – col. 3, line 40). Since Bischoff discloses an industrial process having access to the reference signals transmitted by the global positioning system GPS, which is similar to an agricultural system having plurality of sensors including physical location of Beck, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Bischoff and Beck to include a GPS physical site locator for each automation network device. Bischoff's system utilizes the GPS system in connection with an industrial control system in order to locate the location of various field instruments more accurately, as well as determine and detect and transmit the conditions of such field instrument back to a master control location.

5. As to dependent claims 32 and 48, Beck and Bischoff disclose wherein the first industrial automation network device further comprises first configuration data, wherein the second industrial automation network device further comprises second configuration data, and wherein the controlling workstation receives and stores the first and second configuration data with the first and second industrial automation software programs, respectively (Beck, col. 3, lines 51-63 and col. 4, lines 30-44).

6. As to dependent claims 33 and 49, Beck and Bischoff disclose wherein the first configuration information is downloaded from the controlling workstation to the first industrial automation network device upon a failure or replacement of the first industrial automation device (Beck, col. 6, line 37 – col. 7, line 31).

7. As to dependent claims 34 and 50, Beck and Bischoff disclose wherein the first industrial automation software program is downloaded from the controlling workstation to the first industrial automation network device upon a failure or replacement of the first industrial automation network device (Beck, col. 6, line 37 – col. 7, line 31).

8. As to dependent claims 36 and 52, Beck and Bischoff disclose wherein the first industrial automation function comprises monitoring and/or controlling water usage, power usage, temperature, flow rate, a lighting condition, and/or the state of a metal surface polisher (Beck, col. 7, line 62 – col. 8, line 8).

9. As to dependent claim 37, Beck and Bischoff disclose wherein the second industrial automation function comprises monitoring and/or controlling water usage, power usage, temperature, flow rate, a lighting condition, and/or the state of a metal surface polisher (Beck, col. 7, line 62 – col. 8, line 8).

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10. As to dependent claims 39 and 54, Beck and Bischoff disclose wherein the first and second industrial automation network devices are an I/O device or a programmable logic controller (Beck, col. 4, line 45 – col. 5, line 9).

11. As to dependent claims 40 and 55, Beck and Bischoff disclose wherein the controlling workstation is further provided for storing the second industrial automation software program for backup purposes (Beck, col. 4, line 45 – col. 5, line 9).

12. As to dependent claim 42, Beck and Bischoff disclose wherein the first and second location data is the same (Beck, col. 5, lines 26-54).

13. As to dependent claim 43, Beck and Bischoff disclose wherein the third and fourth location data is the same (Beck, col. 5, lines 26-54).

14. As to dependent claim 44, Beck and Bischoff disclose wherein the first and second GPS physical site locators are the same device (Beck, col. 5, lines 26-54).

15. As to dependent claim 45, Beck and Bischoff disclose wherein the first and second automation functions are the same (Beck, col. 5, lines 26-54).

16. As to dependent claim 46, Beck and Bischoff disclose wherein the first and third automation functions are the same (Beck, col. 5, lines 26-54).

17. As to dependent claim 47, Beck and Bischoff disclose a controlling workstation comprising mapping software for receiving, mapping, and storing the first device address and the first physical location data, and the second device address and the second physical location data, respectively, the controlling workstation further storing the first industrial automation software program for backup purposes (Beck, Abstract, col. 2, line 46 – col. 3, line 63: mapping unit 140 (a controlling workstation includes a mapping-unit interface and a mapping computer and receiver unit 144, the mapping unit 140 uses data obtained from sensor units and positional information received via a GPS antenna to create a map of a given field)).

18. Claims 35 and 51 are rejected under 35 U.S.C. 103(a) as being unpatentable over Beck et al. (Beck), US Patent No. 5,809,440 and Bischoff, US Patent No. 6,255,988 as discussed in claims 31-34, 36-37, 39-50, 52 and 54-55 above, and further in view of Scott, US Patent No. 6,195,706.

19. As to dependent claims 35 and 51, however, Beck and Bischoff do not explicitly disclose wherein the first device address and the first physical location data, the second device address and the second physical location data, respectively, are received in an RARP message. In the same field of endeavor, Scott discloses RARP is well known to those of ordinary skill in the relevant arts, and using RARP mechanism for controlling operation of the network address mechanisms (col. 1, line 57 – col. 2, line 34). Thus, it

would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Beck-Bischoff and Scott to include transmitting the MAC address and the shared physical location in a RARP message to a controlling station in order to establish the address of the device in the network communications system, since Scott suggests that using RARP to determine the system IP address.

20. Claims 38 and 53 are rejected under 35 U.S.C. 103(a) as being unpatentable over Beck et al. (Beck), US Patent No. 5,809,440 and Bischoff, US Patent No. 6,255,988 as discussed in claims 31-34, 36-37, 39-50, 52 and 54-55 above, and further in view of Fukui, U.S. Patent No. 6,131,119.

21. As to dependent claims 38 and 53, Beck and Bischoff do not explicitly disclose wherein the first device address is a MAC address or an IP address, and wherein the second device address is a MAC address or an IP address. Fukui discloses in col. 4, lines 41-58: a system manager unit maps each seat CPU, using its MAC address, to corresponding IP address, and the IP address is mapped to a seat location or position (physical location), wherein at least one of the devices comprises a programmable logic controller having a network address assigned thereto from said address table. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Fukui and Beck-Bischoff to include the device address is a MAC or IP address. Fukui suggests that the motivation for mapping devices to their corresponding physical location will make it easy to complete device specific or user

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specific billing, easy to block service or types of services to particular devices and easy to personalize service to specific devices and users.

Response to Arguments

22. Applicant's arguments and amendments filed on 06/17/2005 have been fully considered but they are not deemed fully persuasive. Applicant's arguments with respect to claims 31-55 have been considered but are moot in view of the new ground(s) of rejection as explained here below, necessitated by Applicant's substantial amendment (see new claims 31-55) to the claims which significantly affected the scope thereof.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chau Nguyen whose telephone number is (571) 272-4092. The examiner can normally be reached on 8:30 am – 5:30 pm Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Heather Herndon, can be reached on (571) 272-4136. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306. On July 15, 2005, the Central Facsimile (FAX) Number will change from 703-872-9306 to 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Chau Nguyen
Patent Examiner
Art Unit 2176

William L. Bashore
WILLIAM BASHORE
PRIMARY EXAMINER
8/24/2005